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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,883	06/20/2003	Venkataram Krishnan	9349-270CT	6675

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EXAMINER	
KEEHAN, CHRISTOPHER M	

ART UNIT	PAPER NUMBER
1712	

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/600,883	KRISHNAN, VENKATARAM	
	Examiner	Art Unit	
	Christopher M. Keehan	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *0704*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

Claims 1-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,599,638 B1 (Krishnan). Regarding claims 1-5 of the instant application, although the conflicting claims are not identical, they are not patentably distinct from each other for the following reason: the difference between claims 1-5 and the claims of 6,599,638 B1 is that claims 1-7 of 6,599,638 B1 comprise an article with a composition, and the instant claims 1-5 comprise the same composition; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the article plus composition of 6,599,638 B1 to encompass the subject matter of the composition of the instant claims. Regarding claims 6-15 of the instant application, although the conflicting claims are not identical, they are not patentably distinct from each other for the following reason: the only difference between the instant claims and the claims of 6,599,638 B1 is that the claims of the instant application, while claiming an emulsion polymer, do not claim a specific emulsion polymer.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5, and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention. In claim 1, applicant claims "which includes the addition of a protective colloid, to replace or substantially eliminate or substantially reduce the amount of phenolics." To begin, applicant does not appear to "replace" phenolics, as there are no steps set forth in the claims or the specification to take a certain amount of phenolics, remove them, and put a protective colloid in its place, as "replacing" would seem to require. Also, applicant claims "In a system using phenolics alone or in combination with one or more other polymers..", and then claims "to replace" the phenolics. This is unclear because the system has been defined as improving a system using phenolics, and if the phenolics are replaced, then the system is no longer a system using phenolics.

Claim 12 recites the limitation " protective colloid " in claim 11. There is insufficient antecedent basis for this limitation in the claim. It appears that applicant meant to use the term "protective colloid" in place of "polyvinyl alcohol" in claim 11. If this is the case, then claims 6-10 appear to be duplicates of claims 11-15. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Freidzon (5,629,370). Freidzon discloses a composition comprising an emulsion polymer (Abstract) which includes crosslinkable functionality (col.4, lines 47-55) and which includes the addition of a protective colloid (col.2, lines 53-63), and a limited amount of phenolics (col.3, lines 33-43).

Regarding Claim 2, Freidzon discloses wherein the protective colloid is a polyvinyl alcohol (PVA)(col.2, lines 53-63).

Regarding Claims 3 and 4, Freidzon discloses wherein the PVA is fully or partially hydrolyzed (col. 2, lines 53-63).

Regarding Claim 5, Freidzon discloses wherein the crosslinkable functionality is provided by a self-crosslinking monomer selected from the group as instantly claimed (col.4, lines 47-55).

Claims 1, 2, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller-Mall et al. (4,265,796). Mueller-Mall et al. disclose a composition comprising an emulsion polymer (Abstract) which includes crosslinkable functionality (col.2, lines 39-61) and which includes the addition of a protective colloid (col.2, lines 62-67), and from none to a limited amount of phenolics (col.3, lines 16-40).

Regarding Claim 2, Mueller-Mall et al. disclose wherein the protective colloid is a polyvinyl alcohol (PVA)(col.2, lines 62-67).

Regarding Claim 5, Mueller-Mall et al. disclose wherein the crosslinkable functionality is provided by a self-crosslinking monomer selected from the group as instantly claimed (col.4, lines 47-55).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller-Mall et al. (4,265,796) in view of Freidzon (5,629,370). Mueller-Mall et al. and Freidzon, as applied to Claim 1 above, are as set forth and incorporated herein. Mueller-Mall et al. do not appear to specifically disclose wherein the PVA is fully or partially hydrolyzed. Freidzon teaches that in an emulsion polymer system comprising PVA as a protective colloid with a very limited amount of phenolics, PVA that is fully or partially hydrolyzed can be applied (col.2, lines 53-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied fully hydrolyzed or partially hydrolyzed PVA as taught by Freidzon to the composition as taught by Mueller-Mall et al. because Freidzon teaches that fully or partially hydrolyzed PVA can be applied interchangeably resulting in a more versatile composition.

Claims 6, 7, 10-12, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindemann et al. (5,190,997). Lindemann et al. disclose a filter comprising a filter substrate impregnated with an emulsion polymer (col.4, lines 36-49), the emulsion polymer having crosslinkable functionality being substantially devoid of phenolics and stabilized using a protective colloid (col.11, lines 7-16).

Regarding Claim 7, Lindemann et al. disclose wherein the protective colloid is polyvinyl alcohol (col.11, lines 7-16).

Regarding Claim 10, Lindemann et al. disclose wherein the crosslinkable functionality is provided by a self-crosslinking monomer selected from the group as instantly claimed (col.11, lines 7-16).

Regarding Claims 11 and 12, the same reasoning as set forth above for Claims 6 and 7 also applies to Claims 11 and 12, as the claimed subject matter is essentially the same.

Regarding Claim 15, the same reasoning as set forth above for Claim 10 also applies to Claim 15, as the claimed subject matter is essentially the same.

Claims 8, 9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann et al. (5,190,997) in view of Freidzon (5,629,370). Lindemann et al., as applied to Claim 6 above, are as set forth and incorporated herein. Regarding Claims 8, 9, 13, and 14, Lindemann et al. do not appear to specifically disclose wherein the polyvinyl alcohol is fully or partially hydrolyzed. Freidzon teaches

that in an emulsion polymer system comprising PVA as a protective colloid with a very limited amount of phenolics, PVA that is fully or partially hydrolyzed can be applied (col.2, lines 53-63). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied fully hydrolyzed or partially hydrolyzed PVA as taught by Freidzon to the composition as taught by Lindemann et al. because Freidzon teaches that fully or partially hydrolyzed PVA can be applied interchangeably resulting in a more versatile composition.

Claims 8, 9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann et al. (5,190,997) in view of Applicant's admitted prior art. Regarding Claims 8, 9, 13, and 14, Lindemann et al. do not appear to specifically disclose wherein the polyvinyl alcohol is fully or partially hydrolyzed. Applicant discloses that known and conventional protective colloids can be employed in the emulsion polymer such as partially and fully hydrolyzed polyvinyl alcohols (Specification, paragraph bridging pages 5 and 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied known and conventional fully hydrolyzed or partially hydrolyzed PVA as taught by Applicant to the composition as taught by Lindemann et al. because Applicant teaches that fully or partially hydrolyzed PVA are conventional and known in the art and can be applied interchangeably resulting in a more versatile composition.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Keehan whose telephone number is (571) 272-1087. The examiner can normally be reached on Monday-Friday, from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Keehan

July 21, 2004

Christopher Keehan
Art Unit 1712